

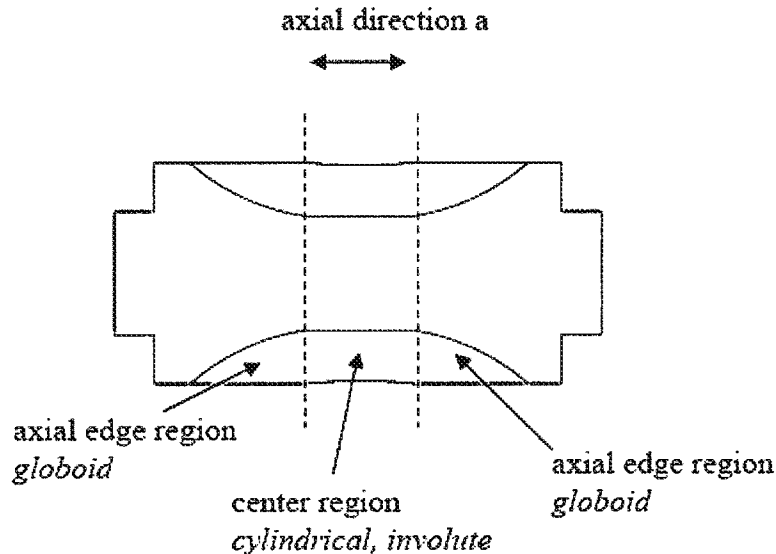
Appln No. 10/567,882
Amdt date March 23, 2010
Reply to Office action of December 23, 2009

REMARKS/ARGUMENTS

Claims 1-5, 7-12, 14-27, 29-32, and 34-87 are pending in the application, of which claims 38-81 have been withdrawn. Claim 1 has been amended.

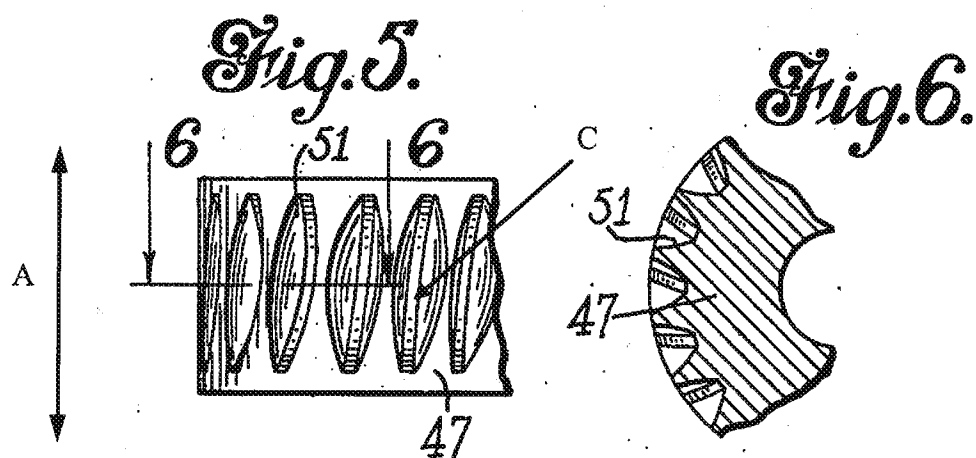
Claims 1-5, 7, 8, 12, 15-27, 29-32, 34, 36, 37, 82-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over International Publication WO/9951456A1 to Taubmann et al. (using U.S. Patent 7,051,986 as a translation of the PCT reference for discussing the rejection) ("Taubmann") in view of U.S. Patent No. 2,128,483 to Hendrick.

Applicant has amended claim 1 to recite "wherein the external toothing comprises, in the axial direction, two axial edge regions and a center region having different toothing shapes, wherein the external toothing is globoid in shape in said axial edge regions with a tooth depth continuously reducing towards the axial ends of the external toothing, and wherein the center region has a cylindrical portion with an involute profile in the axial direction." Support for these limitations can be found in the Amended English translation of the Specification, on page 3, last paragraph and continuing to page 4, and on page 15, first paragraph. In particular, the Specification discloses that the center region 16 of "the external toothing 15 in the axial direction a is designed in a cylindrical part in the tooth path with a tooth 10 profile (e.g. in the manner of an involute toothing) in order to widen the tolerance position of the drive worm 2 axially relative to the spindle nut 1 thereby avoiding problems with noise." *See Specification on page 15, first paragraph.* FIG. 1A of the present application also shows the involute toothing in the axial direction a in the center region 16. Applicant has provided a diagram below which illustrates the tooth profile of the external toothing 15 in the axial direction as disclosed in the Specification.



Applicant believes that Taubmann and Hendrick do not teach or suggest an external toothing for the spindle nut as recited in claim 1.

Taubmann does not disclose the noted limitations of claim 1. Hendrick also does not disclose the noted limitations of claim 1. FIGS. 5 and 6 of Hendrick are reproduced below and modified by Applicant. Hendrick discloses that the grooves 51 are wider at their intermediate portion than at their ends, and are also deeper at their intermediate portions than at their ends. *See Hendrick, page 2, first column, lines 47-50.* Hendrick does not disclose that the center region of the grooves 51 has a cylindrical portion with an involute profile in the axial direction. As shown below, the center region C of each of the grooves 51 has the same curved profile in the axial direction A as the rest of the groove 51. Hendrick only shows in FIG. 6 that the grooves 51 have a flat bottom in a direction perpendicular to the axial direction A. Thus, each grooves 51 of Hendrick is shown to have a continuously curved profile from one end of the groove to the opposite end of the groove in the axial direction A without any center cylindrical portion with an involute profile in the axial direction A.



Based on the above, Applicant believes that Taubmann and Hendrick do not teach or suggest “wherein the external tothing comprises, in the axial direction, two axial edge regions and a center region having different tothing shapes, wherein the external tothing is globoid in shape in said axial edge regions with a tooth depth continuously reducing towards the axial ends of the external tothing, and wherein the center region has a cylindrical portion with an involute profile in the axial direction.” Therefore, claim 1 and dependent claims 2-5, 7, 8, 12, 15-27, 29-32, 34, 36, 37, 82-87 are patentable over Taubmann in view of Hendrick.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taubmann in view of Hendrick as applied to claim 1 above, and further in view of U.S. Patent No. 4,110,054 to Moeller, Jr. Because claim 1 is patentable over Taubmann and Hendrick as discussed above, claim 11 is patentable over Taubmann in view of Hendrick and Moeller, Jr.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taubmann in view of Hendrick as applied to claim 1 above, and further in view of U.S. Patent No. 4,386,893 to Hauser, Jr. Because claim 1 is patentable over Taubmann and Hendrick as discussed above, claim 14 is patentable over Taubmann in view of Hendrick and Hauser, Jr.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taubmann in view of Hendrick as applied to claim 26 above, and further in view of U.S. Patent No. 2,313,776 to Segal. Because claim 1 is patentable over Taubmann and Hendrick as discussed above, claim 28 is patentable over Taubmann in view of Hendrick and Segal.

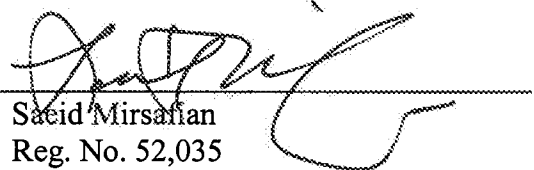
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Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taubmann in view of Hendrick as applied to claim 34 above, and further in view of U.S. Patent No.5,893,959 to Muellich. Because claim 1 is patentable over Taubmann and Hendrick as discussed above, claim 35 is patentable over Taubmann in view of Hendrick and Muellich.

Based on the foregoing, Applicants believe the claims are in condition for allowance.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By


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